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World Forum for Harmonization of Vehicle Regulations**Working Party on Automated/Autonomous and Connected Vehicles****Eighteenth session**

Geneva, 22-26 January 2024

Item 6(a) of the provisional agenda

Advanced Driver Assistance Systems and UN Regulation No. 79:**Advanced Driver Assistance Systems****Proposal for a supplement to the 03 and 04 series of amendments to UN Regulation No. 79 (Steering equipment)****Submitted by the experts from Germany, France, Netherlands, United Kingdom of Great Britain and Northern Ireland, and the European Commission***

The text reproduced below was prepared by the experts from Germany, France, Netherlands, United Kingdom of Great Britain and Northern Ireland, and the European Commission and is based on informal document GRVA-17-44. The proposed amendments aim to differentiate between the scope of UN Regulation No.79 and the proposed UN Regulation on Driver Control Assistance Systems (DCAS). The modifications to the existing text of the Regulation are indicated in bold for new characters and strikethrough for deleted characters.

* In accordance with the programme of work of the Inland Transport Committee for 2024 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



I. Proposal

Delete paragraph 1.2.3.:

- “1.1. This Regulation applies to the steering equipment of vehicles of categories M, N and O^A.
- 1.2. This Regulation does not apply to:
- 1.2.1. Steering equipment with a purely pneumatic transmission;
- 1.2.2. Autonomous Steering Systems as defined in paragraph 2.3.3.;
- ~~1.2.3. Steering systems exhibiting the functionality defined as ACSF of Category B2, D or E in paragraphs 2.3.4.1.3., 2.3.4.1.5., or 2.3.4.1.6., respectively, until specific provisions are introduced in this Regulation.”~~

Insert a new paragraph 2.10., to read:

- “2.10. “Driver Control Assistance System (DCAS)” means the hardware and software collectively capable of assisting a driver in controlling the longitudinal and lateral motion of the vehicle on a sustained basis.”**

Insert a new paragraph 4.4.3., to read:

- “4.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this Regulation, an international approval mark consisting of:
- 4.4.1. a circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval;^B
- 4.4.2. the number of this Regulation, followed by the letter "R", a dash and the approval number to the right of the circle prescribed in paragraph 4.4.1.
- 4.4.3. a letter “X” preceding the approval number in the case when either:**
- (a) ACSF of Category B1 or C have been exempted from the technical requirements of this UN Regulation according to paragraph 5.6.2. and/or 5.6.4.**
- (b) The steering system exhibits functionality defined as ACSF of Category B2, D or E.”**

Paragraph 5.6.2., amend to read:

- “5.6.2. Special Provisions for ACSF of Category B1
- Any ACSF of Category B1 shall fulfil the following requirements, **unless the vehicle is equipped with a DCAS which:**
- (a) Incorporates this function, and**
- (b) Allows the activation of this function only during operation and as part of DCAS, and**
- (c) Complies with the technical requirements and transitional provisions of UN Regulation No. [DCAS].”**

Paragraph 5.6.3., amend to read:

- “5.6.3. ~~(Reserved for ACSF of Category B2)~~

^A As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.6, para. 2 - <https://unece.org/transport/standards/transport/vehicleregulations-wp29/resolutions>

^B The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.6, Annex 3 - www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

Systems exhibiting the functionality defined as ACSF of Category B2, D or E shall be prohibited, unless the vehicle is equipped with a DCAS which:

- (a) Incorporates the function(s), and
- (b) Allows the activation of the function(s) only during operation and as part of DCAS, and
- (c) Complies with the technical requirements and transitional provisions of UN Regulation No. [DCAS].^y

Paragraph 5.6.4., amend to read:

“5.6.4. Special Provisions for ACSF of Category C

Power-driven vehicles equipped with an ACSF system of Category C and trailers supporting lane change function(s) shall fulfil the following requirements- **unless the vehicle is equipped with a DCAS which:**

- (a) Incorporates this function, and
- (b) Allows the activation of this function only during operation and as part of DCAS, and
- (c) Complies with the technical requirements and transitional provisions of UN Regulation No. [DCAS].^y”

Insert a new footnote y (used in the paragraphs mentioned above), to read:

“^y Contracting Parties who do not apply UN Regulation No. [DCAS] are not obliged to accept approvals to UN Regulation No. 79 for vehicles with systems which exhibit the functionality defined as ACSF of Category B2, D or E, or for vehicles which do not comply in full with the technical requirements for ACSF in this UN Regulation.”

Annex 1,

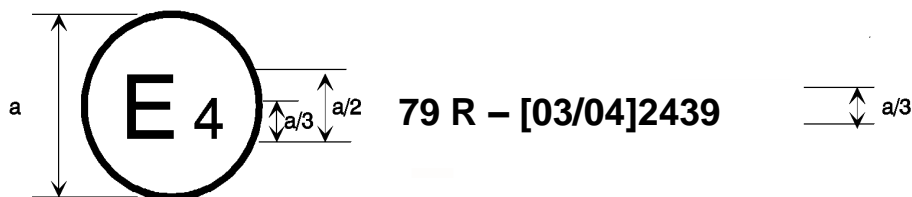
Insert new paragraphs 6.4. to 6.5.1., to read:

- “6.4. Vehicle is equipped with ACSF which has been exempted from the requirements of this UN Regulation: yes/no
- 6.4.1. If yes, details:
- 6.5. Vehicle is equipped with a steering system which exhibits functionality defined as an ACSF of Category B2, D or E: yes/no
- 6.5.1. If yes, details:”

Annex 2, amend to read:

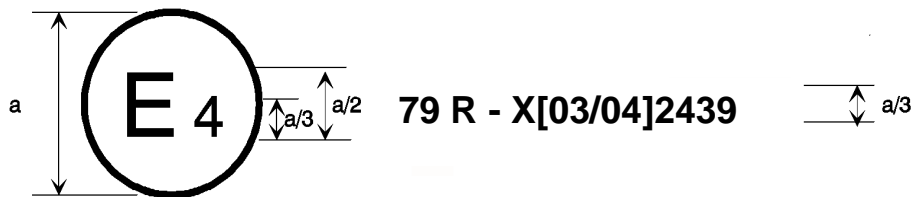
“Arrangements of approval marks

Model A
(See paragraph 4.4. of this Regulation)



a = 8 mm min

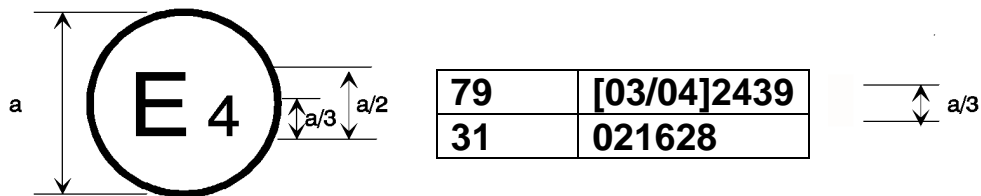
The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to steering equipment, been approved in the Netherlands (E 4) pursuant to UN Regulation No. 79 under approval No. [03/04]2439. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 79 incorporating the [03/04] series of amendments.



a = 8 mm min

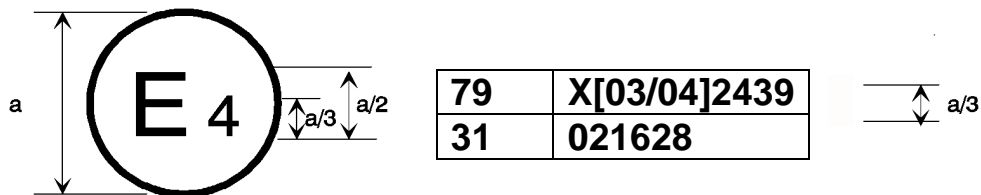
The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to steering equipment, been approved in the Netherlands (E 4) pursuant to UN Regulation No. 79 under approval No. [03/04]2439. The letter “X” preceding the approval number indicates that the vehicle is equipped with ACSF which has been exempted from the requirements of this UN Regulation, and/or that the vehicle is equipped with a steering system which exhibits functionality defined as an ACSF of Category B2, D or E. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No. 79 incorporating the [03/04] series of amendments.”

Model B
(See paragraph 4.5. of this Regulation)



a = 8 mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos. 79 and 31.^c The approval numbers indicate that, at the dates when the respective approvals were given, UN Regulation No. 79 incorporating the [03/04] series of amendments and UN Regulation No. 31 included the 02 series of amendments.



a = 8 mm min

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations Nos. 79 and 31.^d The letter “X” preceding the approval number pursuant to Regulation No. 79

^c The second number is given merely as an example.

^d The second number is given merely as an example.

indicates that the vehicle is equipped with ACSF which have been exempted from the requirements of this UN Regulation, or that the vehicle is equipped with a steering system which exhibits functionality defined as an ACSF of Category B2, D or E. The approval numbers indicate that, at the dates when the respective approvals were given, UN Regulation No. 79 incorporating the [03/04] series of amendments and UN Regulation No. 31 included the 02 series of amendments.”

Annex 8,

Paragraph 3.4., amend to read:

“3.4. (Reserved for ACSF of Category B2)”

II. Justification

1. The amendment should not place any additional requirements on vehicles already approved to UN Regulation No. 79, since the Regulation previously did not apply to vehicles with such features. It is therefore proposed as a supplement.
2. *Paragraphs 1.2.3. and 5.6.3.:* Approval of steering systems exhibiting an Automatically Commanded Steering Function of category B2, D or E functionality was excluded from UN Regulation No. 79 until ‘specific provisions are introduced’ into the Regulation. Those ‘specific provisions’ now exist, although they have been written into another (new) regulation. The footnote allows Contracting Parties who do not apply UN Regulation on DCAS to maintain the previous restrictions imposed by UN Regulation No. 79.
3. *Paragraph 2.10.:* A definition of a Driver Control Assistance System (DCAS) added, as it is now used in this UN Regulation.
4. *Paragraph 4.4.3. and Annex 2:* A new marking provision is added so that approvals to UN R79 which have made use of the provisions specifically relating to DCAS can be identified, and therefore Contracting Parties who do not apply R[DCAS] can assess whether an UN R79 approval is valid in their territory or not.
5. *Paragraphs 5.6.2. and 5.6.4.:* It is necessary to exempt the technical requirements in UN R79 covering ACSF-B1 and ACSF-C when these have been approved to (or met the requirements of) R[DCAS], in order to avoid duplication of testing and/or incompatibility of requirements.
6. *Annex 8, paragraph 3.4.:* Reference to ACSF-B2 in this reserved paragraph can now be removed, as provisions for ACSF-B2 will not be added to UN Regulation No. 79.